

Claims

1. A cylinder (01) of a folding apparatus, having a cylinder body, at least one gripper (02), which can be moved between a position in which it is lowered into the interior of the cylinder body, an extended position and a clamping position, wherein clamping position in which a tip of the gripper (02) presses flat material (07, 08) from the outside against a surface section (26) of the cylinder body, and wherein a shaft (21) is arranged, around which the gripper (02) performs a pivoting movement between the lowered and the extended positions, wherein a counterthrust element (26) on the cylinder body for cutting flat material (07, 08) to be grasped by the gripper (02) is assigned to the gripper (02), wherein in respect to the direction of rotation of the gripper cylinder (01), the gripper (02) is arranged ahead of the counterthrust element (26) assigned to it, wherein another shaft (24) is arranged, around which the gripper (02) performs a movement in the circumferential direction of the cylinder (01), characterized in that both shafts (21, 24) are arranged fixed to the cylinder.

2. A cylinder (01) of a folding apparatus, having a cylinder body, at least one gripper (02), which can be moved between a position in which it is lowered into the interior of the cylinder body, an extended position and a clamping position, wherein clamping position in which a tip of the gripper (02) presses flat material (07, 08) from the outside against a surface section (26) of the cylinder body, and

wherein a shaft (21) is arranged, around which the gripper (02) performs a pivoting movement between the lowered and the extended positions, wherein a counterthrust element (26) on the cylinder body for cutting flat material (07, 08) to be grasped by the gripper (02) is assigned to the gripper (02), wherein in respect to the direction of rotation of the gripper cylinder (01), the gripper (02) is arranged ahead of the counterthrust element (26) assigned to it, wherein another shaft (24) is arranged, around which the gripper (02) performs a movement in the circumferential direction of the cylinder (01), characterized in that at least one tape is arranged, which acts together with the cylinder (01) at least partially in the area between the cutter cylinder (04) and the folding jaw cylinder (14).

3. The cylinder in accordance with claim 1 or 2, characterized in that a first shaft (27) is supported by a first arm (19), which is pivotable around the second shaft (21) which is fixed in place in respect to the cylinder body, in order to drive the radial inward movement of the first shaft (27).

4. The cylinder in accordance with claim 3, characterized in that the pivot movement of the gripper (02) and the radial movement of the first shaft (27) are coupled in such a way that the first shaft (27) moves radially inward in a final phase of the pivot movement into the clamping position.

5. The cylinder in accordance with claim 3, characterized in that a pivot movement of the first arm (27) is driven with the aid of a cam disk (31).

6. The cylinder in accordance with one of the preceding claims, characterized in that a coupling rod (22) is hinged with one end to the gripper (02) and with the other to a second arm (23), which is pivotable around a third shaft (24) in order to drive the pivot movement of the gripper (02).

7. The cylinder in accordance with claim 6, characterized in that a pivot movement of the second arm (23) is driven with the aid of a cam disk (32).

8. The cylinder in accordance with claim 6, characterized in that of the two arms (19, 23) the first arm (19) is oriented more in the circumferential direction and the second arm (23) more in the radial direction of the cylinder body.

9. The cylinder in accordance with claim 1 or 2, characterized in that the cylinder (01) is embodied as a folding blade cylinder.

10. The cylinder in accordance with claim 1 or 2, characterized in that for cutting the gripper (02) is arranged directly ahead of the counterthrust element (26) in the movement direction of the cylinder (01).

11. The cylinder in accordance with claim 10, characterized in that a distance (a) of a tip of the gripper (02) in the lowered state and of an edge of the counterthrust element (26) is less than 30 mm, in particular less than 10 mm.

12. The cylinder in accordance with claim 1, characterized in that at least one tape is arranged, which acts together with the cylinder (01) at least partially in the area between the cutter cylinder (04) and the folding jaw cylinder (14).